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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/606,808	06/28/2000	James R. Larkins	DEKA:264	6461

7590 12/02/2002

Fulbright & Jaworski L L P
600 Congress Avenue
Suite 2400
Austin, TX 78701

EXAMINER

MEHTA, ASHWIN D

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 12/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/606,808

Applicant(s)

LARKINS ET AL.

Examiner

Ashwin Mehta

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-21 and 29-36 is/are allowed.
- 6) ☐ Claim(s) 22-28 and 37-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. The rejection of claims 9, 12, 19, and 20-24 under 35 U.S.C. 112, 2nd paragraph is withdrawn, in light of the claim amendments.

Claim Objections

3. Claim 24 remains objected to under 37 CFR 1.75(c) for failing to further limit the subject matter of a previous claim. Applicants traverse the rejection in the paper received 25 September 2002. Applicants' arguments have been fully considered but were not found persuasive.

Applicants argue that claims 23 and 24 have been amended, and claim 23 is not limited to a hybrid corn plant whereas claim 24 is (response, page 3, 2nd full paragraph). However, claim 23 is still limited to an F1 hybrid corn plant. The corn plant of claim 23 is produced by growing seed that is produced by crossing inbred corn plant LIZL5 with another, distinct inbred corn plant. The corn plant of claim 23 is an F1 hybrid.

Claim Rejections - 35 USC § 112

4. Claims 22-28 and 37-39 remain rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

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application was filed, had possession of the claimed invention, for the reasons of record stated in the Office action mailed 20 June 2002. Applicants traverse the rejection in the paper received 25 September 2002. Applicants' arguments have been fully considered but were not found persuasive.

Applicants argue that the specification describes a detailed description of a hybrid corn plant, designated "7026255," which was produced with LIZL5 as one parent. Applicants argue that the specification provides tables in which this hybrid was compared to other hybrid varieties, in which some morphological traits of this hybrid are given, and which SSR and isozyme marker profiles of this hybrid are given. Applicants argue that this, combined with the fact that any hybrid derived from LIZL5 will contain exactly half of its genes, is more than adequate to provide a description of hybrid plants and seeds derived from LIZL5 (response, page 5, 2nd paragraph). However, all hybrids produced by crossing two different inbred plants will not have the same morphological and physiological characteristics and genetic profiles. The description of corn plant 7026255 does not describe the morphological and physiological descriptions of all other corn plants that can be produced by crossing LIZL5 to any other corn plant, or even other progeny from the same cross. That any hybrid plant will inherit half of its genes from LIZL5 does not provide sufficient information of how those genes or its products will be affected by or interact with the genes and their products inherited from the other parent. The fact that any hybrid plant will inherit half of its genes from LIZL5 then does not provide sufficient information of the morphological and physiological characteristics expressed by that hybrid plant. One cannot describe all of the morphological and physiological characteristics of corn

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plant 7026255 that also definitely will be expressed by other hybrids, nor can one describe the characteristics that will be different.

Applicants further argue that a SSR genetic marker profile of LIZL5 is in Table 6, and that because corn plant LIXZL5 is an inbred corn plant, all hybrids having LIZL5 as a parent will contain these same SSR genetic markers and thus will be distinct and identifiable from any other corn plant on this basis (response, paragraph bridging pages 5-6 to page 6, 1st full paragraph). However, the presence of these markers still does not describe the morphological and physiological traits expressed by the hybrids. None of these markers have been linked to any expressed traits. The structures of these markers have not been correlated with any expressed traits. Further, the specification shows that at least two other inbred corn plants share many of the same loci, and so these shared loci do not distinguish the claimed plants from other plants. It is also noted that the specification does not describe the sequences of the primers that were used to produce this SSR profile, nor the PCR conditions one would need to know to repeat the experiments. The specification indicates at page 60, line 3 that the primers are from Celera Amgen. However, the sequences of the primers are not described, and it is not clear if these primers are freely available to the public, and if they would remain so for the term of a patent should one issue from the instant application. Further, without a description of the sequences of the SSR, one cannot confirm that the same SSR has been detected. It is also noted that 16 of the 18 isozyme markers of LIZL5 in Table 7 are also found in at least two other corn varieties, those of the other plants in Table 7. The information in Table 7 does not distinguish the claimed hybrids from other corn plants, as other corn plants contain almost all of the same markers.

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Applicants also argue, concerning the claimed plants further comprising single locus conversions and transgenes, that they have more than adequately described plants that comprise essentially all of the desired morphological and physiological characteristics of LIZL5 by way of descriptions of LIZL5 (response, paragraph bridging pages 6-7 and page 7, 1st full paragraph). However, the claims broadly encompass the introduction of genes that have not been discovered or isolated. Such genes are clearly not described by the specification. Applicants also argue that the rejection ignores the methodology for creating single locus conversions and transgenic corn plants, and that single locus traits for conferring male sterility, waxy starch, herbicide resistance, etc. are described (response, paragraph bridging pages 7-8 to page 9, 1st full paragraph). However, a method of producing a product does not describe the product itself. Further, the specification does not provide the source where one may obtain all of the genes that are listed in the specification. For example, Applicants response indicates that the specification describes the single loci that confer the traits "industrial usage" and "yield stability"(response, paragraph bridging pages 7-8). While the specification includes these in a list of single loci, it does not provide the sequences of the loci themselves, or an indication that the prior art teaches that they have been isolated at the time the instant invention was filed. It is suggested that the claims drawn towards plants comprising single locus conversions be amended to recite the types of single genes that confer traits contemplated in the specification, for example disease or pest resistance genes, provided the prior art teaches that those genes have been isolated and therefore reduced to practice.

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Summary

5. Claims 1-21 and 29-36 are allowed. Claims 22-28 and 37-39 remain rejected.
6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this or earlier communications from the examiner should be directed to Ashwin Mehta, whose telephone number is 703-306-4540. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays from 8:00 A.M to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson, can be reached at 703-306-3218. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 and 703-872-9306 for regular communications and 703-872-9307 for After Final communications. Any inquiry of a general

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nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

A.M.
November 26, 2002

A handwritten signature in cursive script, appearing to read "Amy Nelson".

AMY J. NELSON, PH.D
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600